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COMMUNICATIONS.

SYMPTOMS AND TREATMENT OF VARIOLA.

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HISTORY.

In the Bible, among other curses which it is declared the Almighty would inflict upon the Jews, for disobedience, the "scab" is specified. "The Lord will smite thee with a scab, whereof thou canst not be healed." Small-pox has long been prevalent in the East, and proved to be very fatal to the soldiers of the Crusades, about which time it was first studied by the modern pathologist. Subsequently, a plan of prophylactics was suggested by a distinguished English woman, Lady Wortley Montagu, who acquired from the Turks the knowledge of inoculation. Afterwards the immortal Jenner proposed the induction of vaccinia, or the introduction of a mild poison into the circulation, in lieu of the virus of small-pox, which had for centuries proved so very fatal to the human species. Variola became epidemic in Philadelphia in 1837, when a committee of eminent physicians reported on the nature of the disease through the columns of the *American Medical Recorder*. In 1838 it prevailed in London. At Marseilles, of the 8000 who were not vaccinated, one-half took the disease, and one in every four died. Among the 30,000 vaccinated 2000 had small-pox.

Watson's "Practice of Physic" declares that "no contagion is so strong and sure as small-pox, and that none operates at so great

a distance," and when epidemic, is most fatal. Modified variola or varioloid is defined to be variolous fever without eruption. I have seen a single exception, which was attended by an eruption in a person of intemperate habits and who had been greatly exposed to the weather.

SYMPTOMS.

The writer has encountered the disease in the epidemic form on two occasions, viz.: on board the U. S. S. Jamestown, on the Brazil station, and during the late war at a general hospital in Washington City, when it was marked by the following symptoms: fever, vomiting, and lumbar pains, which lasted until the third day. The eruptive, or second stage, began with a rose-colored efflorescence of the face, the neck and trunk, followed by papulæ which developed into round, flattened, and umbilicated pustules on the sixth, and as late as the eighth day. During the period of maturation the symptoms of fever decline, and the body exhales a peculiar and offensive odor resembling the refuse of putrid meat exposed to the atmosphere. The swelling of the face in this stage becomes so great as to obliterate the features. About the ninth day the secondary fever occurs, and lasts for three or four days, when the process of desiccation commenced, and the declining or convalescent stage is established. The eruption attended by inflammation may extend to the larynx and trachea, producing cough, and even extinction of the voice. Deglutition becomes painful from the inflamed state of the fauces and thickening of the epiglottis. Under these circumstances the danger from death by apnoea, due to effusion,

inflammation and closure of the rima glottidis is very great. In cases of confluent small-pox, erysipelas and troublesome abscesses are frequent complications. The nares become closed, and the patient can breathe only through the mouth. The bronchi and lungs sympathize with the general disorder. In one example I knew purulent ophthalmia to be so violent as to result in sloughing of the cornea and the destruction of the sight of one eye. Without exception, it is, when fully developed, the most loathsome disease to which mankind is liable.

TREATMENT.

With respect to this subject, reference to the details of a few cases may be interesting.

Case 1. A sailor, by the name of Rogers, introduced the disease on board of the *Jamestown*. While "on liberty" in the port of Buenos Ayres he was exposed to the contagion; the weather at the time was cold and damp, and the crew had suffered from influenza. The patient was at first treated for the latter complaint. On the fifth day symptoms of variola of a malignant confluent form were fully developed. The face was greatly swollen, and covered with a vesicular eruption, attended by intense itching, dyspnoea and delirium during the night. The eyelids were very painful from inflammation. After the use of purgatives and anodynes, the plan of treatment first suggested by Sydenham was adopted, viz.: the free use of refrigerants, mucilages, sponging the surface with cool or tepid water, and an abundant supply of fresh air without admission of the light. The nervous symptoms were allayed by solutio sulph., morph., McMunn's Elixir, or Hoffman's Anodyne. Lime juice, the product of the unripened lemon, which is much used as a cooling drink in the Tropics, was refreshing to the patient. As soon as possible, the senior surgeon, Dr. J. M. Foltz, now Surgeon General of the Navy, had the patient removed to the Spanish Hospital, at Buenos Ayres. In vain was every precaution taken to protect the crew; the disease spread from the steerage to the fore-castle, infecting both officers and sailors, and presenting every form of variola. Proofs were furnished that it was communicated by the inhalation of an atmosphere tainted with the exhalations of a person already affected with it.

In cases where the eruption was slow in coming out, the pock flattened and was

without proper pus, and the skin excoriated and bled after scratching, the prognosis was not favorable. To prevent ulcerative destruction of the true skin and pitting, the pustules on the face and other exposed surfaces were cautiously evacuated and touched with argent. nitras. Mucilago ulmi is a good demulcent application to the ulcers, which are very painful and require nice handling. Unlike cold cream, the mucilage undergoes no chemical change. Soft pledges of cotton, steeped in oleine, also answer a good purpose to allay the itching. In the formative stage of the eruption, and previously, the free use of unguents of fresh lard or sweet oil, applications which have been resorted to in the treatment of scarlatina, will be found to be highly advantageous.

On the accession of the secondary fever, usually about the eighth day and later, there is great restlessness, due to sympathy of the constitution with the local disorder; large opiates are demanded; opium in the solid form is to be preferred. Confinement of the hands by bandages, to prevent scratching, becomes necessary.

About the tenth day of the eruption desiccation has begun on the face, contemporary with the formation of pocks on the arm and body: The fetor is now greatest, and is first perceptible to the patient himself. The eschars on the face become black and hard; here and there are whitish spots. On the hands and extremities the pocks are roundish and of a cream color. On the palms of the hands the spots resemble extravasations of blood beneath the cutis. The occurrence of pustules on the mucous membrane of the eye covering the cornea will sometimes cause blindness. When accompanied by high fever, a dry and black tongue, hot skin and delirium, the prognosis is very unfavorable. In one instance I knew opacity of the cornea to follow from the poison of the virus being accidentally applied to the eye. Rupia is another sequela of the disease, and is very painful; the ulcers then discharge a dark colored, unhealthy pus, the evacuation of which increases the pain. In this advanced stage recourse should be had to stimulants and tonics, viz.: the mineral acids, quinine and iron, milk punch, eggs and beef-tea. Goulard's cerate should be applied locally, and disinfectants, solutio chlorinata and carbolic acid sprinkled about the apartment. The patient should never be given over.

I have seen them lying comatose and entirely unconscious, the features obliterated, and the face a mass of suppuration, and pulseless, and afterwards recover. The emaciation is often very great; slowness of speech and deafness always indicate great prostration of the vital powers.

Case 2. A midshipman. He was admitted with symptoms of violent delirium, loss of consciousness and fever. After copious venesection and warm bath the symptoms abated, and on the third day the characteristic eruption appeared. This case illustrates an exception to the usual treatment, and proved the value of prompt and active depletion, and may be recommended as a substitute for that of Doctor J. R. Beck. In the late October No. of the *American Journal of the Medical Sciences*, this author has written an article entitled "History of a Remarkable Case of Modified Variola." Dr. Beck says, "the most curious phase of the disease was the delirium. Nothing seemed to produce any alleviating effect, and the solution of the hydrate of chloral, nineteen doses, each containing thirty grains, and five grains of the bromide of potassium, proved unavailing to relieve the patient." The lancet would have accomplished this result, according to my experience. The prevention of variola lies in prompt vaccination, repeated in the case of adults when the disease prevails as an epidemic. At the present time children appear to be the greatest sufferers. I may close with the observation that the time intervening between the reception of the virus into the system and the first stage of primary fever is nine days, the average being, according to the books, between eight and twelve days. An epidemic tendency certainly prevails, and irregular and intemperate habits, with neglect of vaccination, must prove to be strong predisposing causes of variola.

Query? Why is variola more fatal during the winter season?

PRACTICAL NOTES. — CONGESTIVE CHILLS.—HÆMATURIA.

By W. W. ALEXANDER, M. D.,
Of Athens, Tenn.

My custom, when a congestive chill is threatened, is to precede the use of quinia by an emetic, or mercurial cathartic, with a view to relieve the portal circulation. Quinia is more efficient when its exhibition is

preceded by attention to an engorged liver. I have found counter-irritation and revulsives useful, also sinapisms, and stupes of turpentine over the stomach and hypochondriac region, when there is congestion of the stomach, as indicated by pain, vomiting, etc. A blister to the epigastrium will generally give prompt relief to the gastralgia, and greatly facilitate the cure of the intermittent.

The following I find effective to break up "chills and fever:"—

R. Quinia,	grs. iij.
Ferri carb., p.,	grs. ij.
Piperin,	grs. j. M.

S. For one dose. Repeat at intervals of four hours, during the absence of fever.

During fever I usually administer Tinct. Gelsem., \mathfrak{m} xx, at intervals of two hours, or until fever abates, diminishing the dose, or lengthening the intervals, as circumstances may indicate. Three or four doses of each R. will usually be sufficient. Nit. ether makes, in some cases, a good addition to the Tr. Gel. I usually follow the quinia with liq. pot. arsenit. ("Fowler's solution"), which I direct in six-drop doses three times a day (varying the dose to suit age or condition of patient), to be taken in a little sweet milk or mucilage, after eating, and continued for one week. Then suspend for five days, after which resume for three, and so continue for three or four weeks, so as to cover, each week, during the three days it is taken, the day upon which the chill last occurred. When there is much *anemia* I like the phosphate of iron. The mur. tinct. suits some cases, well combined with c. tinct. of gent., administering the gent. before and the iron after eating. So much for my treatment of malarial fever, as usually occurring in this locality. Of course, when congestion is very great or threatening, reaction slow and feeble, larger doses of quinia will be required. I have sometimes used chloroform to prevent a chill; dose, one teaspoonful, well triturated with sugar, and diluted with milk or water.

I recently successfully tested the efficacy of dilute acetic acid for dissolving conglum in the bladder of a patient who has long suffered from hæmaturia. After removing the broken-down clots I syringed the bladder with tepid water, to which was added carbolic acid, in the proportion of two drops to the fluid ounce, held in solution with

glycerine, followed for a day or two with a very weak solution of sulphite of soda, which corrected the horrible fetor previously attending the withdrawal of the urine and decomposed blood. This patient is an old gentleman, *æt.* seventy-three years. First hemorrhage occurred about two years ago, preceded by aching and tenderness about the lumbar region, and rigor, treated by aperients, rest, and counter-irritation. Subsequently an attack occurred while attending "Tatis Springs," a watering-place of some resort in Upper Tennessee, while there or in that neighborhood, for he started home, and was necessitated to stop a few miles from the Springs. He suffered from retention for five days, somewhat relieved by profuse diaphoresis. The attending physician failing to enter the bladder with a catheter, counsel was summoned from Knoxville, when catheterism was successful. He was then almost moribund. Several quarts of offensive urine were withdrawn, after which he slowly recuperated; but the bladder, from over-distention, remained paralyzed. On his return to Athens, his home, some months ago, he still suffered from hæmaturia upon the least exertion.

Upon examination I found the prostate gland enlarged (a frequent complication in old men). For this I prescribed *iod. pot.*, and as a tonic, *hydrastis can.* He was suffering from anorexia. The *hydrastis* improved his appetite and strength. I directed carriage riding, a nutritious but easily digestible character of food, avoiding hot bread, fried victuals, and stimulants; and for the hæmaturia fluid extract of ergot, muriatic tincture of iron, *buchu*, *uva ursi*, turpentine, *copalba*, etc., were all in turn used with but partial, if any, benefit.

His malady was much aggravated by a long trip in the country during inclement weather, necessitating confinement in the house for several days, which he left one evening when the atmosphere was damp and cool, to attend the nuptials of a son. On his return home, late in the night, he was thoroughly chilled; could not succeed in drawing off his water; sent for me next day; found him with a hard rigor; urethra very sensitive; difficulty in introducing smallest catheter; bladder much distended; diagnosed coagulum; nothing followed the introduction of the catheter but a few drops of blood. Supposing the catheter might be stopped up with coagulum, I syringed it;

still no flow. I then resorted to the acetic acid, as I had seen recommended by some contributor to *Nelson's Lancet*, a Canadian journal, some years ago. To prevent a return of the difficulty, relieve local congestion, and give tone to the bladder, I telegraphed to Knoxville for ice, and kept a bladder constantly filled, and at intervals of one or two hours frequently applied it to the perineum, and occasionally above the pubis, for several days, until the hemorrhage was completely relieved. I also introduced pieces of ice in the rectum, as suggested by some writer in your journal a few weeks ago. Since then the old gentleman has been taking Fowler's solution, in five-drop doses, three times a day, with apparent good effect. He was at my office the other day. Reported himself as improving in strength; free of pain; able to pass a little water through the day the natural way; uses the catheter only at night, before going to bed; thinks he will soon be able to dispense with it entirely.

I neglected to mention that I gave him *nux vomica*, with a view to its contractile effects on the muscles of the bladder. He has had no return of hæmaturia now for several weeks. While I write he calls to see me, looking every way much improved; says he feels better than he has done for many months; still finds it necessary to resort to the catheter sometimes, usually once or twice during the twenty-four hours. A medical friend, an old acquaintance, and a relative of his wife (Dr. J. G. M. Ramsey, a gentleman of some literary reputation, author of "*Ramsey's Annals of Tennessee*," etc., and for more than half a century a practitioner of medicine), recommends him to use gin. Mr. G., my patient, calls to know if he shall do so. I advise him to let well enough alone, for the present; promise permission to take the gin cautiously, in a few days, if I think it should then be indicated. I also direct a pint of cold water to be thrown up the bowel every day.

RECENT RESEARCHES OF PROF. BROWN-SEQUARD ON EPILEPTOID CONVULSIONS.

At the stated meeting of the New York Pathological Society, Sept. 25th, Dr. Brown-Sequard gave, in a brief manner, some new facts in regard to the production of epilep-

told convulsions in animals, especially the Guinea pig.

The first animal exhibited had been operated upon so as to expose the spinal cord. This operation in the Guinea pig, as was long ago demonstrated by the speaker, is almost invariably followed by convulsive attacks similar in three essentials to those of epilepsy in the human subject. By irritation of what the doctor calls the epileptic zone, the skin of the neck near the ear, convulsions can be produced at will; the movements last from thirty to sixty seconds. Animals so operated upon never recover, the injury is irreparable, and after some months death takes place. A recently discovered and very interesting fact with regard to the production of these convulsive movements in the Guinea pig is that injury to other nerves will be followed by phenomena similar in all respects to those produced by injury to the spinal cord.

Division of the sciatic nerve in the Guinea pig produces results similar to, if not identical with, those produced by injury of the spinal cord.

In this pig, remarked the professor, the sciatic nerve has been divided quite recently. I now irritate, by pinching, the skin of the neck, and you notice that the animal is thrown into violent convulsions of short duration.

Another animal was exhibited, in which the operation had been done some time ago. In this animal the convulsions could be produced with difficulty, as recovery was beginning to take place.

Another one was shown, nearly well, in which, after powerful pinching of the epileptic zone, no convulsions resulted. In these animals recovery takes place when the divided nerve is re-united. You will observe in two of these pigs that the toes of the leg supplied by the divided nerve are gone: the animal itself has eaten them off. The explanation of this fact is very simple: sensation of the part is abolished, and the pig eats it, just as it would anything else that came in its way. Here you notice one toe is left; it is supplied with sensation by a branch of the crural nerve, and has, therefore, escaped destruction. I have said that animals, after a certain length of time, recover. This is shown by increased sensation in the epileptic zone, and by the falling off of the hair at the same spot. And now comes a very remarkable fact. These pecu-

liarities or traits induced by this operation are *transmissible*. The young of the toeless father or mother, when also born without toes, are liable to convulsive seizures precisely similar to those of the parents, and recovery is preceded by falling off of the hair at the epileptic zone.

The facts show the wide range of phenomena produced when the nerves are injured, and no one observer, no matter how diligent, is capable of interpreting them. In conclusion, Dr. Sequard urged upon the younger members of the profession the necessity of aiding him in these investigations. The operations are simple, the results manifold and complex, and need careful observation and truthful record.

Dr. Sequard will, at an early date, give a series of lectures upon the results of his recent researches. M.

REMARKS ON DR. HIRAM CORSON'S REPORT ON "LIGATION OF THE FUNIS," IN THE "TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA," AT ITS SESSION HELD IN JUNE, 1872.

By A. F. A. KING, M. D.,

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It is to be regretted that in the report referred to at the head of this article, Dr. Corson (who has certainly given us some valuable contributions to medical literature) adopts a mode of argument (if argument it can be called) which must effectually cut off all discussion and leave him with the field to himself, to soliloquize over his own vastly superior knowledge of the subject on which he writes.

In referring to my Essay, published in 1867, he speaks of my "*pretended facts*;" he reads a paragraph, and "*cannot see one word of truth in it*." Such expressions are of little scientific value; they do not deserve criticism.

In whatever degree the opinions expressed in my Essay five years ago may be susceptible of improvement, they can never be controverted by the palpable misrepresentations of facts and misconstructions of language with which the Doctor's report so lavishly abounds. Not once has he quoted me correctly, and *italics* have been used and

omitted as best-suited his purpose. In the following quotation from page 29 of my brochure: "At birth, and for a certain period prior to it, the circulation of blood through the placenta has in part or wholly ceased; *this we know, for the fetal pulse felt in the cord no longer reaches the placenta,*" there are no italics, but Dr. C., by adding them, endeavors to extort from the words the meaning that pulsation is *no longer felt in the cord*, a misconstruction altogether too palpable to need comment.

Again he quotes from page 32 of my Essay thus: "Is it natural and proper that the cord should pulsate, and pulsate strongly and throughout all or a greater part of its length, after the child is expelled." In this rendering he leaves out the word "strictly" and also the italics. The language in the original reads as follows: "Is it strictly natural and proper that the cord *should* pulsate, and pulsate *strongly* and throughout *all* or a *greater part* of its length, after the child is expelled?" Dr. Corson regards this language as implying that pulsation is not felt in the cord after delivery, and laments

the limited experience of one who should entertain such an opinion.

As a further illustration of the manner in which Dr. C. understands English, he makes the following quotation from page 534 of Neill & Smith's Compend: "The two ligatures are useful in case of twins, which sometimes have a common placenta," and construes it to mean that the fetal and maternal circulations are continuous.

It is after such misconstructions as these that the Doctor ascribes to me the opinion that the cord ceases to pulsate some minutes before birth; that it ought to be cut quickly after delivery, etc.; a conclusion as far from the truth as that Drs. Neill and Smith advise tying the cord of the first child in a case of twins, for fear that the mother's blood should come streaming through it.

My Essay is out of print, but I have a dozen or more copies on hand which I shall be pleased to distribute to any readers of the "Transactions" who may wish to disabuse themselves of the errors in regard to my opinions which they may have imbibed from the Report of Dr. Corson.

EDITORIAL DEPARTMENT.

PERISCOPE.

On the Value of Cardiac Murmurs.

Dr. JOHN E. LOCKRIDGE writes to *The Georgia Medical Companion*:—

The experience and investigations of the past ten years have wrought a wonderfully wholesome change in the minds of practitioners in regard to a great many of these murmurs. Murmurs that once gave rise to the most fearful forebodings are now known to be of very trifling importance.

The following are some of the conditions in which we hear these murmurs, viz.: anemia, chlorosis, chorea, hysteria, spinal irritation, fatty degeneration of the cardiac parietes, irritable heart, paralysis, etc., etc.

It is clearly my opinion that two pathological conditions, and only two, give rise to all these murmurs, viz.: hypertension-contraction-spasm of the columnæ carnae, and hypotension-flaccidity-paralysis of the same. It is only necessary for me to give the merest sketch of the structure and functions of the fleshy columns, tendinous chords (*chordæ tendinae*), and their attached valves. The fleshy columns are the muscles of the valves,

and the tendinous cords are the tendons of these muscles, and are also attached by the other extremity to the valves. It is very readily understood in what manner the valves are opened and closed by a successive contraction and relaxation of these fleshy columns in their strictly physiological condition, the columns and tendons being exactly suited in length to reach the auriculo-ventricular foramina, and the valves being precisely suited in size to their openings.

Now, it is perfectly apparent that these columns and cords cannot perfectly subtend the distance to the foramina if the former be in a condition either of excessive or diminished tension; for in the latter case the valve will be allowed to recede into the corresponding auricle, and in the former condition it will be arrested by the cords before it reaches the auriculo-ventricular foramen. In both of these conditions there will be a regurgitation of blood from the ventricle to the auricle, through the imperfectly closed valve, and the resultant cardiac murmur. So it is very plain that in case we have either excessive condensation, or spasm, tonic or clonic of the fleshy columns; or, on the other hand, excessive relaxation or

paralysis of the same, we have a murmur. It will be seen from the foregoing remarks that the immediate cause of systolic regurgitant murmurs *alone* have been accounted for by the opposite two lesions in question. And, in truth, from a practical stand-point, very little need be said in regard to diastolic functional murmurs; for they are seldom heard, and never, to my recollection, by me. Williams is cited, twenty years ago, as saying that five-sixths of the murmurs that he had met with were not only regurgitant, but mitral regurgitant; and that, too, at a time when the scope of the bellows murmur was limited almost exclusively to organic diseases of the organ.

I do not wish to be understood as attributing the cause of these functional murmurs solely to increased or diminished tension of these fleshy columns; for the cause is doubtless composite to some extent, the same pathological conditions extending to, and influencing and controlling the action of the valves themselves, as well as the cardiac parietes. I believe, however, that the fleshy columns act by far the most prominent part in the production of the abnormal sounds.

So far as my observation goes the murmur has invariably been mitral regurgitant, that is, systolic, below, and to the left. And how does my philosophy accord with the anatomy and physiology of the heart? The parietes of the left ventricle are three times as thick as those of the right; the columnar carnae are much more fully developed, and this is especially true of the *columnae papillares*, of which there are only two, one of which is attached to each mitral valve at one extremity, by means of its tendinous cord; and by its other extremity to the walls of the ventricle. Now, it is very evident to me that if a part or organ is more strongly developed than another organ, in order that it may be adequate to the performance of a more arduous function, it will surely follow that a failure of this part to perform its duty, or a disposition to take upon itself a work of supererogation, will be attended with more manifest results. And this is precisely true of the right and left sides of the heart; as well as of its systolic and diastolic action; and we would surely expect the mitral regurgitant murmur much more frequently from the foregoing pathological conditions.

I have already alluded, incidentally, to the most frequent remote causes, or *causae causarum*, of these functional murmurs. Of the predisposing causes, the most frequent, according to my observation, are spinal irritation, irritable heart, paralysis, chorea, dyspepsia, epilepsy, a general tendency to spasms, hysteria, the excessive use of tobacco, old age, the last stage of typhoid fever, and other diseases characterized by great depression of the physical organism; and last, but by no means the least frequent cause, the so-called hygienic condition of the blood. For, whilst I admit that "blood runs thicker than water," yet I am more disposed to attribute the murmur to imperfections of the

channel than to the character of the flowing liquid. In respect to the murmurs so often heard in the last stages of typhoid fever, as well as the irregularity of the heart's action, these are more likely to be due to the want of cardiac tension, than softening of the parietes, to which cause some writers have assigned their production. Although these causes are as diversified as possible, yet they are as reconcilable as possible, when we remember that, although the heart is capable of contracting and dilating even when removed from the body, and totally severed from all nervous influence, yet its action is greatly influenced by every kind of influence and emotion*.

I know of no additional light that I can throw on the differential diagnosis of functional and organic diseases of the heart. An opinion is only to be formed by experience and a very careful and minute investigation of each particular case, together with a judicious appreciation of the data thereby elicited. In cases that turned out to be purely functional, I have heard the *bruit de souffle*, as well as the *bruit de diable* and *bruit de scie*. I have thought, however, that when the objective symptoms are very palpable, and the physical signs very loudly developed, an opinion might be given in favor of functional disease, and especially so in the absence of hypertrophy or dilatation, or when the area of cardiac dullness is but very slightly increased.

In regard to the prognosis, I have no hesitancy in saying that it is as favorable as possible, except in such cases as those in which paralysis, old age, fatty degeneration of the heart, the last stages of typhoid fever, and other low diseases stand as the remote cause. In truth, since I have been noticing these troubles particularly, every case has fully recovered except a youth who was dying of typhoid fever, and an old lady, whose case is still under consideration. I have styled some of the cases semi-organic, for the reason that, although there is no histological change in the interior structure of the heart, as respects volume or appearance, or heterotopia of tissue, yet in one of the pathological conditions which I have assumed to exist there is diminished tension in the fleshy columns, and doubtless in the cardiac parietes; and this in some cases is capable of superinducing hypertrophy with attenuation of the walls, or eccentric hypertrophy. Although I have found the hypertrophy of dilatation to exist in some cases to an appreciable extent, yet the heart ultimately returned to its normal proportions. Hence, I conclude that although the same causes exist by which true and false hypertrophy are produced in a heart which is organically diseased, viz.: over-distention of the chambers, and an increased amount of work; and in consequence a compensative and conservative hypertrophy; or, on the other hand, a deadly dilatation and attenuation of the walls; yet, whatever change may

* Through the catenation of the cerebro-spinal, par vagum, and ganglionic system of nerves.

have been wrought is capable of being perfectly rectified. This radical difference in the behavior of the two conditions is doubtless due to the kakoplastic metamorphoses that have taken place in the valves and orifices having extended to the cardiac parietes—whether these changes be of rheumatic origin, or softening, or fatty degeneration—and as a legitimate result leading to compensative hypertrophy, or the more unfortunate result, eccentric hypertrophy with attenuation of the walls; both of which conditions are perhaps incurable, and incapable of being rendered normal in their proportions.

As respects the treatment of these murmurs, I have nothing to add, as it consists in merely rectifying the particular fault of system which stands as the predisposing cause of the case that may be under consideration, together with the judicious combination of such remedies as are known to have a specific action upon the heart and nervous centres.

How do the Spermatozoa enter the Uterus?

Dr. J. R. BECK, of Fort Wayne, Indiana, reports a curious observation in the *St. Louis Medical and Surgical Journal*. He remarks:—

The only manner in which this subject can be positively set at rest, and decided for all time to come, is to observe the os and cervix uteri *during the sexual orgasm*. I have made two such observations, and know beyond the peradventure of a doubt that all the descriptions of the modes of entrance of the semen into the uterus heretofore described are totally and wholly, both in the main and in detail, theoretically and practically untrue. What the real force and the real state of affairs is, which compasses the end, remains yet to be described; and we find ourselves, if the truth has been spoken thus far, reduced to the extremity of asking the question again which stands at the head of this paper, "How, then, does the spermatic vesicle enter the uterus?"

I elucidate and answer the question by a description of what I saw, and under what circumstances I saw it. As two observations, yielding identically the same results, were made within twenty-four hours of each other, a description of one will represent both. I take from my case-book the description verbatim of the case, as presented to me at the first consultation.

"August 7th, 1872.—Mrs. H. L., age 32 years; of strongly marked nervous temperament; blonde; married eight years; has one child, son, living, seven years old; has had one abortion; last pregnancy was six years ago; commenced to menstruate at fourteen years of age; present illness has existed six years, dating evenly with abortion. Symptoms which have been apparent during its course were dragging and weight in pelvis; more or less pain in back and loins; slight vesical and rectal irritation; inability to walk without great fatigue;

inability to lift weight of any moment; slight leucorrhœa, and a sinking sensation referred to the epigastric region; supposed the cause to be a 'falling of the womb.' Present condition as regards menstruation: menstruates regularly every twenty-eight days, normal as to amount, and suffers no pain of any moment. Leucorrhœa, very slight as to amount, exists all the time; is white, glairy, and unmistakably uterine; pain is intermittent, by no means severe, and is referred to the back, loins, inguinal and sacral regions. Locomotion is impeded to a great extent by the consequent fatigue. As to other symptoms, she is usually constipated, and has a copious eruption of Acne upon the face. Of physical signs, the touch shows the os uteri just inside the vulvæ; the speculum was not used; the probe shows the pelvic-uterine axis to be changed considerably, but no flexion of uterus, and probe enters cavity two and one-half inches. Diagnosis, prolapse of the uterus in the second stage. Treatment, mechanical support to the uterus by means of McIntosh's stem pessary, and, internally, ferruginous tonics, Iodide of Potassium, and Liq. Potass. Arsenitis." Thus much for the history of the case, as compiled from an office examination.

Calling at the residence of the patient next day, for the purpose of adjusting the uterine supporter, I made an examination by the touch, and upon introducing my finger between the pubic arch and the anterior lip of the prolapsed cervix, I was requested by her to be very careful in manipulating those parts, as she was very prone, by reason of her passionate nature, to have the sexual orgasm produced by very slight contact of the finger. Indeed, she stated that this had more than once occurred to her when making digital investigation of herself. Here, then, was an opportunity never before afforded any one, to my knowledge, and one not to be lost upon any consideration. Carefully separating the vulvæ with my left hand, so that the os uteri was brought clearly into view in a strong light, I swept the right forefinger across the cervix twice or three times, when almost immediately the orgasm occurred, and the following is what was presented to my view:—

The os and cervix uteri had been firm, hard, and generally in a normal condition, with the os closed so as not to admit the uterine probe without difficulty; but immediately the os opened to the extent of fully an inch, made five or six successive gasps, drawing the external os into the cervix each time powerfully, and at the same time becoming quite soft to the touch. All these phenomena occurred within the space of twelve seconds' time certainly, and in an instant all was as before; the os had closed, the cervix hardened, and the relation of the parts had become as before the orgasm.

Now I carefully questioned my patient as to the nature of the sensations experienced by her at the period of excitement, and she is very positive that they were the same in

quality as they ever were during coition, even before the occurrence of the prolapse; but admits that they were not exactly the same in quantity, believing that during coition the orgasm had lasted longer, although not at all or in any respect different as to sensation. I had almost forgotten to make mention of the intense congestion of the parts during the "crisis," and introduce the statement here.

When in connection with the statement of the patient, who is a very intelligent and appreciative lady, I add my own observation to the effect that there was no inflammation of any kind present, either in the os or cervix uteri, the vagina, bladder, or rectum, and that the parts were in an entirely normal condition except as to position, I think we had the phenomena before us which are always present during coition; and the passage of the spermatic fluid into the uterus was explained fully, satisfactorily, and beyond the shadow of a doubt.

Cases of Cerebro-Spinal Meningitis.

The annexed description is by Dr. H. C. FAIRBROTHER, in the *St. Louis Medical and Surgical Journal*:—

In four cases under my care the invasion of the disease was as follows: The child, in apparently good health, goes to bed at the usual hour, but wakes up soon after midnight complaining of pain in the head and asks for water, which when taken into the stomach is immediately ejected, together with other liquid matter of a grass green color. Beyond these two symptoms, cephalalgia and gastric irritation, there is nothing remarkable. In the remaining five cases the disorder was marked chiefly by the same symptoms, though coming on in a less abrupt manner. During the progress of the disease a great variety of symptoms present themselves. The most constant among these, and those which seem particularly to identify this affection with the ordinary descriptions of that disorder sometimes called cerebro-spinal meningitis, are the following: severe and continued pain in the head, extending down the spine; nausea and vomiting; rigid tension of the posterior cervical muscles; disturbance of the pupil, either by contraction or dilatation, in one eye or in both; slow pulse; exalted sensibility; in a few cases the petechial eruption; occasional roseolar blush; low moanings or muttering delirium; involuntary twitching of the muscles; dark feces and turbid urine. From several analyses of the urine no uniform alteration in its consistent elements was found to exist. Professor Clemens examined two specimens, but observed no morbid change worthy of record. Now, while one or more of these symptoms has been present at certain times, in every case, they have in no instance appeared together in any considerable number in a distinct and unmixed form, but have generally been more or less blended with other symptoms which seemed altogether independent of the

primary affection. And these collateral symptoms have often stood in the way of a clear diagnosis, and caused no small amount of disagreement on that subject. But these very complications have certainly been of such a nature as to impart a rare interest to a proper study of the disease.

For, when carefully observed and recorded, these symptoms have been found, in nearly every case, to so group themselves together, as to indicate beyond a doubt the existence of a secondary disorder. And so prominent often are these secondary symptoms, as to completely mask for a time the primary disease. Hence the frequent difference of opinion with regard to diagnosis. The most common supervening disorder in these cases has been pneumonia, that disease that so often takes advantage of a reduced state of the system for its invasion. It is a form of pneumonic inflammation, too, that is very likely to elude detection, coming on as it does without the usual initiatory symptoms, without cough, without pain, without sputa of any kind. But one will observe a gradual rising of the temperature to the extent of three or four degrees; a quickening of the pulse from its usual low rate to something above the normal standard. The respiration is also quickened, and the deviation from the natural pulse-respiration-ratio that generally exists throughout the disease is increased in some cases to an extent altogether wonderful; so that at times the breathing has been observed actually to keep pace with the pulse. This alteration in the function of respiration readily directs the attention to the chest, where, upon percussion, dullness is found extending over a large portion of one lung, generally the right. By applying the ear to this side of the chest, a more or less complete absence of the respiratory murmur is observed, together with slight subcrepitant rale. It is that hypostatic form of pneumonia extending to the bronchial tubes, which is liable to occur in any of the low-graded fevers. This has proven to be a serious complication of the original malady, the patients nearly all dying soon after the above condition was discovered.

Clinical Significance of Sputa.

Dr. A. J. STEELE, of St. Louis, writes to the *Medical and Surgical Journal*, of that city:—

We have not been able to diagnose pulmonary tuberculosis by means of the tubercle cell found in sputa; and while willing to believe that there is a tubercle cell, *sui generis*, which if found in expectorated matter would afford sufficient evidence of the presence of tubercle in the lung, still, practically this is not known to be possible; for there are so many other elements going to make up the mass of the sputa, namely, epithelial, pus and mucous cells, granular matter, broken down and degenerated tissue, that our cell tubercle, if actually present, is so obscured and concealed as not to be recognized; again, if present, it has so undergone

disintegration as to have lost its characteristics, and thus cannot be made available.

The microscope detects in expectorated matter but a single substance that may be considered pathognomonic, namely, elastic tissue. Its presence signifies lung destruction, brought about by inflammation and ulceration, the latter process not confining itself superficially to the mucous surface, but having extended deeper into the parenchyma itself.

The basement framework of those organs so beautifully adapted to the aeration of the blood, reminding one, with their open spaces and interstices, of sponge, is composed of elastic tissue, which, being of comparatively low vitality, *i. e.*, less vascular than most other tissues, is but slowly susceptible to the destructive process; and thus from ulcerative action fragments of it will be detached and thrown off, still retaining, however, their histological arrangement, being thereby readily recognized under the glass. All sputa does not contain it, but when found it points unerringly to but one source, and thus its clinical importance.

While the appearance of these elastic fibrillæ is peculiar, yet the novice might confound them with the fibre of linen, silk or cotton. Still each have their characteristics, and a little practical observation will enable one to distinguish each from the other. So also the curved streaks of mucus so often present have been mistaken for elastic fibres. A drop of acetic acid at once decides the difference. Elastic fibres are curved, divide dichotomously, are of equal width, sharply contoured, and remain unaffected by acetic acid; once seen are ever after recognized; best studied from section of healthy lung.

If from the sputa is taken a small quantity of the paler portion of the lumps, and if the grayish masses especially are examined on the slide, the elastic tissue will ordinarily be found. Specimens from different portions of the sputa should be subjected to the glass; a delicate hook to catch up, and scissors curved on the flat to nip off the matter examined, are convenient. A drop of acetic acid, which dissolves for the most part the substances present, brings out the elastic fibres more decidedly. When much in doubt, it is well to boil the suspected expectoration in *liquor sodæ*. On cooling, the elastic tissue falls to the bottom of the settling glass, and can readily be removed with the pipette. A power of 300 is quite sufficient to exhibit the fibres.

Such a simple matter is this examination, that I am in the habit of subjecting the expectorated matter of most patients afflicted with lung trouble to it.

The special practical importance of this sign is its early recognition of the destructive changes taking place, before other signs indicate it; before even it is suspected, the microscope tells the certain story of disintegration of air vesicle walls. If diagnosis is much in the practice of medicine, surely an early knowledge of the facts is all the more important. "Had I seen the case earlier,

or had I only known in time," so often remarks the medical man, "the issue would have been different." While undue prominence should not be given to the microscope, still it should hold its legitimate place in the means employed to diagnose disease. Too much neglected in the past, the day comes when it will be found a working tool in the hands of every physician.

Lung destruction associated with tuberculosis is much less amenable to treatment than when it is simply an inflammatory affection. The concomitant symptoms in the former case, the hereditary and personal peculiarities, with the history, enables it to be readily distinguished, and makes the prognosis guarded; while in the latter case a good result would be expected even though a cavity in the lung should have been found. Just here, and in conclusion, we cannot avoid the suggestion that old cicatrices found in post mortem examination of the lungs, and proclaimed to be evidence of pulmonary consumption cured or arrested,* have been proof merely of nature's repair of excavations produced by a simply ulcerative process entirely unconnected with the tubercular diathesis. These become the cases of so-called "spurious consumption."

Crises; or, Critical Days in Disease.

Dr. VAUGHN says, in the *Transactions of the Mississippi State Medical Association*:

In the aphorisms of Hippocrates are taught critical days, and the days set forth by that accurate observer of the early day of medicine are universally accepted by the profession now, and we are justly alarmed when we see a crisis on another day than those fixed by this ancient teacher, because it denotes exhaustion, obstinacy, or relapse of disease.

These aphorisms were no doubt the result of a large amount of observation of fever patients, which having been left to nature, therefore afford a clearer basis of observation, and the periods stand to-day, as the 3d, 5th, 7th, 13th, 21st, 27th, etc., days.

Why is it that these days have more importance in the course of diseases than others? Is there any connection between these odd numbers and the diseased state of the body? The fact is acknowledged, is the question solved? I shall try them by nature's own laws, and see if they present no practical truths to help us in our inquiry.

According to physiological experiments it appears that a living organism, where it is subjected to a starving process, does not lose its bodily substance evenly, but rather periodically, so that its greatest losses fall on the 5th, 8th, and 13th days; then the operations in a living organism differ materially from mere mechanical or chemical operations. If you, for example, expose a vessel of water to an equally dry atmosphere, it will lose its contents by evaporation evenly, just so much per hour. The living organ-

* Watson's Practice, ed. 1853, p. 630.

ism does not. It regulates its losses or expenditures by its own laws, which allow its receipts and expenditures to oscillate between a certain boundary, and make its operations go on in regular periods. These periodical fluctuations are, therefore, normal life, part and portion of all its evolutions in health and disease, and are not peculiar to states of disease. When, therefore, in diseases, on the 3d, 5th, 7th, 13th, 21st, and other such days, a greater amount of losses sets in, in the form of excretions, as sweat, urine, diarrhoea, etc., which is called the crisis, it is nothing more nor less than the same periodic oscillation which is going on continually in the living organism, and which becomes more conspicuous in disease, because it is frequently followed by a decided improvement or death.

It necessarily must become more conspicuous, because this periodical loss is added to the extra consumption, which is a condition of the acute disease.

If the physical state of the patient be such as to endure both, he, of course, must feel better next day, when the periodical acme ceases; and he dies if his physical power cannot endure the united action of both.

Thus the critical days of the disease are nothing more nor less than the normal, periodical fluctuations of the living organism, to which they correspond; and the crisis in that critical day, with its normally increased excretions, which falls, together with the height of the disease.

In corroboration of this view, I will remark that the so-called crisis does not appear when, during the course of the disease, the organism is weakened by improper medication, because then the natural periodical fluctuation is disturbed and destroyed; and it does not appear when, by the application of the proper remedy, health is restored, because the periodical fluctuation alone is not conspicuous enough to be observed. It is, however, never wanting when the disease runs an undisturbed course; and, in so far, it is an important means of distinguishing a successful or unsuccessful treatment.

To observe with care these critical days, I deem of great importance in chronic, as well as acute diseases, and I readily deduce from such observation the following conclusions:

1st. A well treated disease is cured without a crisis; and we may mark the treatment, confident in the future of like results, in the same malady.

2d. When the patient recovers with well marked days of crisis, we may be sure that we missed the case, and the patient recovered without benefit from our remedies.

3d. When no crisis appears, and the patient gets worse and worse, in spite of our remedies, then we may feel assured we missed the mark, and may have done actual harm by our medication.

Lastly, it admonishes us to be patient in our medication of chronic diseases; never hoping to see a very marked change from

medication before the eighth day, and if decidedly favorable then, not to change the remedy before the thirty-fifth day of medication.

I have, gentlemen, collected together and presented you with these observations of experience and research, well knowing that their crudities and errors will fall by the wayside under your critical discussion; while I feel well satisfied that the truths of my paper will be seed sown in good ground; or rather, that I may be merely cultivating the plant springing from seed long since sown, but with some of us it has been choked by the tares of disease.

Chronic Constipation.

Dr. TAYLOR says, in the *Transactions of the Mississippi State Medical Association*.—

The causes, then, of habitual or chronic constipation consist mainly in all those agencies which lead to loss of tone and contractility in the muscles concerned in the act of defecation, and most prominent is the partial paralysis of the muscular tunic of the colon, brought on by over-distention from large accumulation of excrement. This accumulation may arise from an unnaturally large amount of excrement, but it is generally the result of neglect to obey the calls of nature. The desire to defecate is resisted from notions of modesty, or because it is inconvenient just at the time to attend to it; or the mind being preoccupied the call is unheeded. Thus the act is postponed voluntarily or involuntarily, until the sensibility of the rectum no longer gives notice of the presence of feces. Hence accumulation goes on, the rectum and other portions of the large intestine become distended, and loss of contractile power is the result. Weakness of the abdominal muscles from obesity or pregnancy, and weakness of the general muscular system from anæmia, may induce the disease. It is generally believed that deficiency of bile and intestinal secretion contribute to the establishment of the disease. Sedentary habits are said also to bring it on. But it does not appear clear that the presence of bile in the feces is necessary or essential for a free action of the bowels, for we often see them acting very freely in cases of jaundice; and it is very probable that mental occupation, and other circumstances which cause the act of defecation to be deferred by persons of sedentary habits, are more efficient in bringing on the disease than the mere want of exercise. A purely nutritious diet, with but little excrementitious residue, may induce torpor of the bowels. Very active assimilation, copious perspiration, and diuresis, are thought to cause it by rendering the feces unnaturally dry.

In the treatment it is highly important that the patient should co-operate with the physician; and in confirmed cases much patience and perseverance will be required. The sensibility of the rectum must be preserved or restored; and paralysis of the colon

must be prevented or remedied. These are the chief points to be observed in practice. And whilst a judicious selection of drugs will be required in most cases, it must be borne in mind that medicines are of secondary importance. Indeed, it is one of the greatest difficulties which the physician has to encounter to restrain the patient in the use of cathartics. Nothing is more natural than for a person to try to remedy in the easiest and quickest manner possible a difficulty so apparently easy to manage as constipation. Although the immediate symptoms are generally relieved by purgatives, in almost every instance the necessity recurs for repeating the dose again and again; generally in increased quantity or strength. Thus, what is intended as a remedy becomes a source of disease. But the immediate relief experienced by the use of the various pills, bitters, and mixtures, kept at every drug store, grocery and grogshop in the country, and the low price at which they can be bought, recommended as they are by innumerable certificates, gotten up with great ingenuity, are temptations which the people are not prepared to resist. Consequently, the physician must content himself to combat the evil as best he can, until the people shall have been educated to a higher appreciation of the medical profession.

After what has been said, I do not deem it necessary to occupy much time in speaking of the special treatment of constipation. The diet should consist as much as possible of such articles as are known to have a laxative effect; and the experience of the patient must be consulted in making the selection, as idiosyncrasy has much to do with the diet as well as the medicines we use. The food should be easily digestible, and taken at regular, but not too long intervals. Mild animal food, as mutton, chicken, game, etc., and vegetables, fruits, molasses, buttermilk, etc., will be found suitable for most persons. Tea and coffee are more questionable, but as promoters of digestion their use is probably advantageous in many cases. Next to the diet in importance is the establishment of a rule to solicit an evacuation daily at some given hour, and not to perform the act of defecation too hurriedly. This habit persevered in will frequently result in sufficiency in the evacuations, without the aid of medicines, even after the disease has been established. And if practiced, in connection with a proper selection of the diet, before the establishment of the disease, it will generally prevent it. Prevention is not less sure than simple.

In most cases some medicines will be required, but they should be judiciously selected, and administered with caution. Selections may be made according to the peculiarities of the case, and the fancy of the physician. Aloes, on account of its specific action on the large intestine, is most usually selected. It may be given in various combinations to suit the case, *e. g.*, with iron when anæmia exists, with mercury if the

biliary secretion be deficient, or with the bitter tonics where the digestive organs are torpid. Aloes, nux vomica, and iron, is a valuable combination in a large class of cases. According to my observation the use of aloes is not contra-indicated by the existence of hemorrhoids; on the contrary, I think it is decidedly beneficial in the external variety of that affection. Most writers on materia medica, through all time, proscribe aloes where hemorrhoids exist, and charge it with producing the disease when habitually used. Yet we have eminent practical authorities opposed to this doctrine. Doubtless an injudicious use of the remedy may have this effect, but we must distinguish between the proper use and the abuse of all remedies. It is the physician's duty to be able to discriminate in the selection of his remedies. It is this which distinguishes him from the quack. Piles is much oftener attributable to the disease for which aloes is used than to the aloes. *Post hoc ergo propter hoc* is a fallacy into which physicians often suffer themselves to fall, and we too often blindly follow authority, without submitting it to the *experimentum crucis*. Oppolzer, of Vienna, who had a very wide reputation in the treatment of hemorrhoids, used aloes in both the internal and external forms of the disease, and he used it whether constipation existed or not. Fordyce Barker, of New York, also recommends it in the treatment of hemorrhoids in pregnant and puerperal women. Some practitioners are very partial to the solanæ, particularly to the belladonna, variously combined with other remedies. In some cases they may act well; all are familiar with the occasional benefits of a cigar. But it is probable their beneficial action is limited to those cases of erethism, or spastic condition of the muscular coat of the bowels. They are contra-indicated where atony exists. In the latter nux vomica is an invaluable remedy. Electricity and friction over the abdomen are useful in restoring tone in some obstinate cases of partial paralysis. Enemata will be occasionally required to dissolve or soften hardened masses of fecal matter, or to dislodge scybala. They may be conveniently administered by means of any of the improved syringes now in use, and may consist of simple water, or soap and water, tepid or cool. Some practitioners think highly of small injections daily of cold water, and as a local tonic they will prove useful in some cases.

Points in Medico-Legal Science.

Dr. T. M. STEVENS, of Indianapolis, says, in the "Transactions of the Indiana State Medical Association":—

Who are experts? We know this question has been answered in various ways, in former years, and sometimes now it has been held that any physician may, that even a layman can, take the title of and act as an expert; others stoutly maintain that none but those who have turned their attention

exclusively to the subject at issue should be called or admitted to testify. For instance, that, in cases of mental disorders, none but those who have gained experience by coming in contact with large numbers of insane should be deemed worthy of having any sound opinion upon these subjects. This practice excludes all but *attaches* of hospitals for the insane, etc.; or that only he who exclusively, and as a specialist, has turned his attention to surgery should judge as to the correctness, or otherwise, of points so connected. This view, considered alone, is no doubt nearer the truth than the former opinion; but we think the blending of the two is the correct position. An expert is one who has gained a thorough knowledge of a subject, at least who is master of all that is known upon that subject. Such is the definition of every authority. This knowledge may be gained in various ways; indeed, there are many who are better experts after seeing but few cases of insanity, or performing a few surgical operations, than a large majority who have spent years in such relationship. The quick eye and ready perception must be theirs; having these as a foundation, they can be cultivated; but he to whom nature has denied them can never learn—a multitude of facts only confuse him. Our advice to every one who may be asked in court the question, "Are you an expert?" would be to consider if he has mature views in reference to the subject in hand; if so, let him boldly maintain himself, but never once waver simply because he has not cast medicine to the dogs and devoted himself wholly to surgery.

Seeing, now, who ought to be considered experts, we have to say, with reference to the manner of summoning such testimony, that we disapprove of it *in toto*. At a casual view it may look very fair to have both sides of a question examined. That the prosecutor or the prisoner, the plaintiff or defendant, shall be justly dealt with, is certainly right; but to permit either side to bring forward experts to testify in their especial interest is the worst way in the world, to gain the ends of justice and truth; for we must remember that *common* and *expert* testimony is very distinct, the one referring to incidents actually transpiring, the other to *opinions* offered upon the evidence or hypothetical case. This latter can be of most varied descriptions, and, indeed, in most cases it is a necessity that such opinions will vary upon some point or points. "Doctors differ," 'tis said, and it is true; and this is one grand argument against pitting opposing testimony, one against the other. We are mortal; none so perfect but they may be influenced, unconsciously to themselves, in the interest of one or other of the parties; and then the clash of arms, the fight for victory, the desire to maintain one's self, the sticking to the "sixteen hands high," though it be proven to be false; being snatched up, perhaps without a moment's notice, to be badgered by the attorneys; expected to deliver matured views upon subjects that require

thought and study—all these means, and more, are against the present rule.

But what is the remedy? This is simple enough. It is to have a corps of experts appointed, either through the machinery of legislation or by the courts, say for each district; then you have a body of men, well selected, who can come nearer filling the requirements than any other. First, they will be posted upon all points likely to come up; will have notice, and time to investigate; and, above all, will not be liable to be biased, even unconsciously, in favor of either party, but will have truth alone in view. They might be bribed, 'tis true, or corrupted in some way; but so may judge or jury.

This corps of experts should not only be listened to upon points on which their opinions are sought, but they should be considered the authority. We know the jury are the judges of the facts and law in the case; but we think this ought and will be decided, that it refers to *facts elicited by common testimony*, not touching expert opinions at all. Indeed, what is the use in calling a body of men to give scientific opinions, when the jury is so well able to judge of their merits? It is a farce. Either let the common testimony and the law be placed before them alone, or, if experts are called, let it be acknowledged by an acquiescence in their opinions.

HYPOTHETICAL CASES.

Another point, closely connected with this, is the privilege of putting an hypothetical case and receiving opinions upon it. This, of course, is done so that the prerogative of the jury as judges of facts and law shall remain undisturbed; but, indeed, it only in appearance answers the purpose, for what is the difference in basing such opinions upon evidence heard in court, or from considering a supposed case embracing such evidence? We have no doubt, however, that for the sake of appearance this rule will continue until some provision is made, similar at least to the one we have advocated, to wit, the *establishment of a corps of experts*. When this is done, then the need of this very thin fraud will cease, and a straightforward course be taken, for a hypothetical case is not so fair as it seems to be. A far sounder judgment can be formed if we have a chance to investigate as we see fit, and then state our opinions untrammelled with technicalities.

Goutre in Georgia.

Dr. E. W. LANE, of Scarboro, Georgia, writes to the *Georgia Medical Companion*: There is a neighborhood on the head waters of Lott's Creek, containing about fifty families, and spread over a territory of about five by seven miles, the female portion of which seems to be predisposed to this disease. I have been acquainted with the place for thirty years, and have practiced there for fifteen years. There is rarely a female

that has arrived at puberty that is not afflicted with it. It has been so with almost all the women raised there. There never was a male known to have it in that settlement.

The disease yields readily to the iodine treatment. It is seldom that a physician is consulted in regard to it (so well do they understand the treatment). Any young woman moving there takes it; and those who are raised there and afterwards move out, get well without any treatment whatever. The disease is seldom seen in any other locality that comes under my knowledge. There are several creeks that have their head branches in that neighborhood. There are also many spring branches. The soil is sandy; growth principally pine, interspersed with broad-leaf blackjack. Growth on branches, black gum, pairm elder, white bay, titic, poplar, and short-leaf pine. The drinking-water is obtained from wells, the average depth of which is about twenty feet. The habits and diet of the people are the same as in other places. Malarial fever seldom in that locality. Typhoid fever prevails there occasionally.

The locality is noted for its extreme healthfulness in other respects.

Intra-Uterine Hydrocephalus.

Dr. J. M. TAYLOR, of Corinth, reported the following case to the *Mississippi State Medical Society*:—

Mrs. R—, mother of several children, general health good, was taken in labor at full term on the 24th December, 1865, attended by a midwife. In due time the body and limbs of a male child of medium size were delivered. But as the head remained an unusually long time, the parties became uneasy and I was called in. Arrived about three hours after the body was extruded. Head of child seemed perfectly fixed, face looking to the sacrum, shoulders resting against the vulva, and the neck occupying the strait of the pelvis. No pain whatever; ergot failed to excite any; could not pass the finger in any direction between head of foetus and pelvis of mother. Firm traction of body of foetus had no effect. Could not determine the cause of obstruction. Fault was evidently with the foetus; could it be a monstrosity? Seeing that it could not be delivered *per vias naturales* unassisted, I sent home for instruments. Messenger had to go three miles, in the night, consuming about two hours, making some five or six hours that matters remained *in statu quo*. The woman complained of nothing in the meantime, except a little impatience at being confined to one position so long. When instruments arrived, I determined, as the child was dead, it should be delivered with the least suffering and danger to the mother, and that embryulcia was the only remedy to accomplish the same *tuto cito et certe*. Accordingly the patient was placed on her back, with the hips resting on the edge of the bed, legs supported by assistants, the

child depending and pressing upon the perineum. I passed Holmes' Perforator along the nucha of the child, carefully protecting the genital and urinary organs of the mother with two fingers of the left hand until I reached the occiput. I then forced the instrument into the head, and expanded the blades; closing them again, I withdrew the point, made a half turn, re-introduced the instrument at the same opening and expanded the blades again, making a very neat crucial incision just posterior to the foramen magnum. On withdrawing the instrument there was a gush of liquid, which flowed into the *pote de chambre*, under cover, so freely, that the question flashed through my mind, "Is it possible that I have wounded the bladder?" On pushing aside the cover, I was gratified to perceive that the fluid was neither urine nor blood. After the vessel was more than half filled with serum the child's head was released without any force or effort. Thus the cause of detention proved to be intra-uterine hydrocephalus, which, if it could have been detected at the outset, would have required only a simple puncture with the trocar. But in such cases the anxiety and sense of responsibility are none the less, since the real cause of difficulty cannot be determined beforehand. The patient recovered promptly.

Recovery from Tetanus.

Dr. A. E. DUNCAN reports the following case in the *Cincinnati Medical News*:—

March 8th, 1872, was called to Josie D., aged nine years, a healthy child of rather a nervous diathesis. Patient had a slight tetanic spasm at 7 A. M., with premonitory symptoms. Twenty-six hours prior to the first spasm the patient had received a punctured wound in the sole of the foot, from a threaded needle, the needle passing over half through the foot, just behind the articulation of the metatarsal and first phalanx of the little toe of the right foot. There was a well marked red line, some four inches in length, on the top of the foot, marking the course of the inflamed nervous branch. I made a free incision through the punctured wound; directed an emollient dressing, for the entire foot, of bread and milk and water, to be frequently changed; and prescribed chloral hydrate every hour. Left the patient, with instruction to inform me at once if another spasm occurred.

At 8½ o'clock another spasm returned, with increased severity and duration; the spasm returned about every hour and a half. Used chloroform, by inhalation, freely; continued chloral hydrate between the spasms. From 3½ P. M. to 7½ P. M. the increasing and continued spasm was only held in check by the use of chloroform. From 8 P. M. to 7 A. M., March 9th, the positive tetanic symptoms were only slight. During the night continued chloral hydrate p. r. n. and sul. quinine.

During March 9th the patient was in

every way about the same as the day preceding; the severity of the paroxysms were, perhaps, a little more readily controlled by the use of chloroform. Treatment continued, with the addition of bromide of potash combined with the chloral, and the use of resin cerate applied along the course of the inflamed nerve; used enema to produce defecation.

March 10th, patient quite prostrate; has taken no nourishment for more than two days; directed oyster soup. General improvement in the condition of the patient. At 9 A. M. tetanic spasm returned, but with less severity. Kept the patient well under the influence of the chloral; resorted to the use of chloroform at the slightest approach of the spasm.

March 11th, patient quite comfortable, and entirely free from spasm or rigidity of the muscles.

During the entire course of the disease the muscles of the right side were more affected than those of the left side, except the muscles of the face, which were about equally affected on both sides.

March 12th. From this date the little patient made rapid improvement, and was soon quite well.

REVIEWS AND BOOK NOTICES.

NOTES ON BOOKS.

Recent Works on Military Surgery.

The experience of the last few years, especially in Europe, has been so extended in military surgery, and the sanitary studies of camps and barracks, that we need not be surprised at the large number of works recently issued on these branches. We have collected the titles of some of the more recent and important of these. Those in German are the most numerous.

FISCHER, G. Dorf Floing und Schloss Versailles. Kriegschirurgische Erfahrungen. Mit einer Tafel. [Aus "Zeitschrift für Chirurgie."] Leipzig, 89. 114 pp.

KIRCHNER, C. Aerztlicher Bericht über das königl. preussische Feld-Lazareth im Palast zu Versailles während der Belagerung von Paris vom 19. September 1870 bis 5. März 1871 von seinem Chefartz. Erlangen, 1872. 103 pp.

BECK, BH. Chirurgie der Schussverletzungen. Militärärztliche Erfahrungen auf dem Kriegsschauplatze des Werder'schen Corps gesammelt. I. Hälfte. Einleitung und allgemeiner Theil. 370 pp.

FRIEDLEBEN, ALX. Aufgaben und Ziele für den Bund der deutschen Vereine zur

Pflege im Felde verwundeter und erkrankter Krieger. 158 pp.

CHIPAULT, ANT. Fractures par armes à feu, expectation, résection, souspériostée, évidemment, amputation. Avec 37 planches en chromolithographie dessinées d'après nature et lithographiées par G. de Laperrière. 316 pp.

GIRARD, C. Contribution à l'histoire médico-chirurgicale du siège de Paris. 103 pp.

BORGIALLI, D. Studi clinici sulle lesioni traumatiche del capo. 76 pp.

MOINET, FR. W. A Treatise on the Causes of Heart Disease, with a Chapter on the Reason of its Prevalence in the Army. 112 pp.

Large additions to our knowledge of gunshot wounds may be looked for in consequence of the admirable organization of the medical staffs of most European armies.

—Since Prof. VON NIEMEYER's death several of his minor studies have been collected and are now being published by Enke, of Erlangen, under the modest title "*Medicinische Abhandlungen*." The first part contains an essay entitled "*Atmiatry, a Practical Study*," this being the name he gives to treatment of disease by inhalations of vapors and gases (*Athmungs und Luft-heilkunde*).

—Dr. DARWIN's new and important work on the Facial Expression in Animals is now completed and ready for publication.

—The new photographic processes of reproduction are especially valuable in natural history and anatomical publications. Prof. AGASSIZ has made use of both the Albert and Woodbury processes in the illustration of his forthcoming "*Revision of the Echini*."

—The Louisville *Courier-Journal* thinks that "much of the profanity of the age is the result of sending people magazines with uncut leaves. There is now a general outcry against uncut publications, and a reform sooner or later is not improbable."

—The sixth volume of the *Gynecological Journal*, January to July, 1872, published and for sale by James Campbell, Boston, is handsomely bound and printed. This periodical is growing in favor, and were it conducted with a little less attention to the mere personal likes and dislikes of those who have charge of it, would merit approbation in all quarters. But at what time in

the world's history have men learned that the pursuit of science should be divorced from the squabbles of individuals? Terms, \$5 a year; single numbers, 50 cents. Bound half-yearly volumes, \$2.50 each.

—Among the numerous works on general science lately published, which have an interest to the physician, we may mention the following:—

M. J. PLATEAU communicated in May last, to the science class of the Academie Royale de Belgique, a remarkable paper, entitled "Mesure des sensations physiques, loi qui lie l'intensité de ces sensations à l'intensité de la cause excitante," which has been printed in *L'Institut* for the 24th of July. It is a very careful examination of the facts published by FRECHNER in two publications, "Über ein wichtiges Psychophysisches Gesetz," which appeared in "Memoires de la Société Saxonne des Sciences," Vol. IV, and "Elemente der Psychophysik," published at Leipsig.

—Dr. ELLIOTT COUES, one of the most distinguished of our younger naturalists, has written a work on ornithology, giving a complete account of the present state and results of that science. It gives a concise account of every species of living and fossil bird at present known in North America, and will be well illustrated with steel plates and wood-cuts. A notable feature of it, especially useful to young students of ornithology, will be the artificial table for determining the place of any unknown specimen, arranged by Dr. COUES after the method of the manuals of blow-pipe analysis. This "Key to the North American Birds" will be published by the Naturalist Agency, Salem, Mass.

—LEE & SHEPARD will have ready before long an elegant edition of "A General System of Descriptive and Analytical Botany," in two parts. Part I contains Organography, Anatomy, and Physiology of Plants; Part II treats of Iconography, or the description and history of Natural Families. The work has been translated from the French of E. LE MAOUT, M. D., D. J. DECAISNE, by Mrs. HOOKER, wife, we presume, of Dr. Y. D. HOOKER, Director of the Royal Botanic Gardens at Kew, and will have 5000 wood-cuts!

—The APPLETONS, of New York, republish Dr. BASTIAN on "The Beginnings of Life," an elaborate contribution cognate

to Darwinism. "The Evolution of Life," by Dr. HENRY C. CHAPMAN (Lippincott), is another on this subject.

—Sir WILLIAM THOMSON'S "Papers on Electrostatics and Magnetism," and valuable elementary works on anatomy, by the noted MIVART, are announced by Macmillan. Ornithology is to be well remembered in the superb work, Prof. BAIRD'S "Birds of North America," published by Little, Brown & Co.

BOOK NOTICES.

Practical Lessons on the Nature and Treatment of the Affections produced by the Contagious Diseases; with an Account of the Primary Syphilitic Poison, and of its Communicability, based on extensive direct and comparative Observation of the Diseases in both Sexes. With an Appendix on the recent Report of the Royal Commission on the Contagious Diseases Act, and its Application to the Voluntary Hospital System. By JOHN MORGAN, A. M., M. D., etc. With plain and colored Illustrations. Philadelphia: J. B. Lippincott & Co. London: Bailliere, Tindall & Cox, 1872. 1 vol., cloth, 8vo. pp. 336.

The author of this work has been one of the attending surgeons to Westmoreland Lock Hospital, Dublin, for a number of years, and has encountered, of course, numerous cases of venereal disease, many of them highly illustrative. He lacks, however, the faculty of presenting them successfully; and his present work is an ill-digested, imperfect, and often obscure and wandering account of his experience. The typography is exceptionally poor, and the style careless and faulty.

The author discusses the existence of two different poisons, causing chancre and chancreoid; quotes examples of the inoculation of healthy persons; scatters here and there his views as to treatment, and has considerable to say about the Contagious Diseases Act, which he regards very favorably.

While we have little to say in praise of this work, we can confidently recommend it as an excellent one to scare the laity into virtue, as its illustrations are of such a character as to give them a forcible idea of the horrible plights in which a man may get who contracts the "bad disease."

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, OCT. 12, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

HIGHER FLIGHTS IN ANATOMY.

Once in our hearing a teacher of anatomy told his class that one science at least—the one he was lecturing upon—might fairly be said to be exhaustible and well nigh exhausted; that every bone, muscle and nerve in the human subject has long been located and named, and even in the lower animals we can look for little that is new in this field. How widely that teacher erred has been strongly impressed upon us by a perusal of three or four essays published within the last half year.

Indeed, anatomy is but just commencing its higher flight into the regions of abstract and pure science. Hitherto, it has been merely a sorting and naming of specimens, as it were, and the eye of genius which was to deduce from these incoherent details laws as wide-reaching as the universe itself, has been wanting. There are such laws, and the expression we have used concerning them is no hyperbolical exaggeration, but is likely to prove a sober deduction of the exactest reasoning, aye, even a mathematical demonstration itself.

If our readers will be willing to quit for a

few minutes the path of the practical and utilitarian in medical science, to which as a rule we avowedly restrict ourselves, we will attempt to indicate in the briefest outline the plan of development of anatomical science, the problems it proposes to itself, and the possible goal to which it is tending.

A hundred years ago (1774) the eminent anatomist VIOQ D'AZYR perceived that the upper and lower limbs of man and animals bear certain relations to each other, twofold in nature, some of structure (morphology, homology), others of function (analogy, teleology), which, closely considered, lead to results of the highest significance. His essay on the subject, though obscure, gave a start to further studies. Remembering that organisms morphically similar are *homologous*, while those teleologically similar are *analogous*, the reader will understand that the various members of the body are to be compared in these two relations. But in carrying out this comparison two schools have arisen, the one the *syntropists* who maintain that homologous parts look in the same direction; the other the *antitropists*, who insist that such parts look in opposite directions. For example, the former believe that the thumb is the homologue of the great toe; while the latter teach that not the great but the little toe is the true homologue of the thumb. To this latter school belong Prof. JEFFRIES WYMAN, of Boston, and Prof. BURT. G. WILDER, of Cornell University, and it is from the work of the latter that we quote these explanations.

Besides these homologies of members, this repetition of structural or functional plan on the one side and the other, and in the superior and inferior extremities, there is also a repetition between the cephalic and caudal portions of animal organisms, and a vertical homology between the dorsal regions and ventral regions, not only of the single individual, but, in order to complete the true anatomical idea, between two individuals of opposite sex. "Thus there re-

sults," says Dr. WILDER, "a true antitropical homology in all three directions corresponding with the three diameters of a solid."

Allied problems constantly rise to involve still further these intricate relationships, and to render more difficult the solution of the question which lies at the basis of these researches, namely, to define the fundamental plan or type of organic animal life, the law of nature which underlies all structural development, and adapts it to the special uses for which in each case it is designed.

Here an analogy suggests itself, and has been brought forward with due caution, but in a significant relation, by Dr. HENRY HARTSHORNE, before a recent meeting of the American Philosophical Society. It is well known that in vegetable anatomy the leaves and branches of plants follow in their arrangement a spiral law (phyllotaxis) arithmetically calculable, and he suggests that the bilateral symmetry of vertebrates, articulates, and some mollusks, and the whorled forms of radiates and coelenterates may present results of a similar force exercised in a spiral direction in obedience to the same laws. Such a force, indeed, may well be extended even to radiates, for they, at times, as AGASSIZ admits, indicate an apparent bilateral symmetry. Thus we might find at last all organic life developing in forms guided and modeled by the same laws which we are quite certain govern the growth of plants.

And what are these laws? Here we reach the strangest part of this wonderful story. They present the most striking correspondence, we may even boldly say they are identical with the laws which have defined the successive distances of the planets of our solar system from the sun! The brain swims in this enormous leap. But the daring foot of science does not hesitate even at the door of immensity. What law, we again inquire, is this which rules with even hand the scattered worlds in space, and the

growth of every most trivial form of organic life upon all and each of these numberless revolving orbs?

This primordial force has been made the special subject of study recently by Prof. PLINY E. CHASE. He has demonstrated that in any explosive action along a given diameter cardinal points of action occur, whose mathematical combinations coincide strangely with the systematic arrangements of vegetable organisms. Hence he traces all such modifications of solar radiation (for to this we must refer all terrestrial organic forms) to ethereal oscillations, the result of explosive action in a perfectly elastic medium; and this is the primordial material force.

But we have now wandered far from the bones and muscles of the subject. Space and time grow vague and indeterminate in such regions of thought. And it is better that we drop our pen, referring those who would look further into this new anatomy to Dr. WILDER's primer of the science, just published, entitled *Intermembral Homologies*.

LATENT SENSES.

The shallow materialism which would confine all our knowledge to that furnished us by our five senses, meets its refutation in a close study of our physical faculties, not less decidedly than when we analyze our mental powers.

No rational observer can deny the existence of certain peculiar abilities, or, if we may use the expression, latent senses, which take cognizance of facts, and convey a more or less clear impression of them to the intellect, and which are developed far more strongly in some individuals than in others. They point to qualities of matter not recognizable by our weights and scales, and conditions of existence quite asunder from those with which our other senses make us familiar. Misinterpreted, they make up "the night side of nature;" they become a source of superstition or pseudo-science;

and sound men fight rather shy of having anything to do with them, lest they should be classed with the impostors who make capital out of them.

A simple example of what we mean is seen in certain persons of nervous temperament, who can tell the approach of an unseen and unheard individual by a kind of instinct, a sense of presence, not attributable to any sense. Others, again, less numerous, are distinctly and immediately affected by a prevailing tone of mind in an assemblage, or in a companion, though no overt act, or word, or look, betrays that condition. Whether this faculty is occasionally carried to such lengths as to bring about the state known as *en rapport*, we have never had an opportunity to convince ourselves, beyond the suspicion of possible deception. That there is an "atmosphere of mind," however, many facts prove. Some striking instances of "presentiments" can only thus be explained.

British naval history contains a perfectly well-authenticated instance of a commander of a vessel who altered his course, and stopped at an uninhabited island, prompted to do so by a pervading certainty that he would find shipwrecked and suffering men there. He did so, and, being the reverse of superstitious, explained it on the theory that their intense anxiety affected his mind, though at a distance, through some medium of communication similar to that which deflects certain metals, when freely suspended, toward the pole.

How far the demon of Socrates, and those other inward guides which other men of great genius have recognized, can be explained on similar hypotheses, it were premature to say. Was it an idle superstition that these men cherished? It is noticed that those who risk much and often are most observant and heedful of these silent monitors. Is this because the slaves of chance, knowing their success depends not on careful forethought, are thereby driven to grov-

eling superstition? Or is it not that dealing in matters where reason cannot help them, and remains silent, they are more heedful to the voice of other mentors, disregarded by most minds?

An example of this is well known in Europe, in the person of a wealthy Maltese nobleman, the Commendatore VINCENZO BUGEJA. He is often seen at the famous resorts along the Rhine where public gaming-tables are found. He plays only at rare intervals, and then only for very large stakes; but he declares that he never plays unless inwardly admonished to do so by some inward power or impulse which he cannot resist, and he always leaves off playing the instant he is warned by this same influence. He wins while obeying the impulse, but loses when he disobeys the admonition to stop. He appeared at the German tables in 1865, 1867, and 1869, and on every occasion was a heavy winner; but he distributed the greater portion of his winnings among the poor, and then left abruptly for parts unknown, and would not be heard of again for many months; indeed, after his last appearance in Homberg, in 1869, he was not seen again in Germany until about a month ago. He then made his appearance at the tables at Homberg, but remained a fortnight without staking a franc. Then, suddenly, he played with great boldness, winning twenty thousand dollars the first day, and never less than five thousand dollars on other days, "until he heard from his internal monitor," and then he started for Berlin.

But a much more satisfactory example of what we mean by latent senses is told of himself by Mr. W. HANKS LEVY, F. R. G. S., in a work entitled "Blindness and the Blind," lately published in London. He says:—

"Whether within a house or in the open air, whether walking or standing still, I can tell, although quite blind, when I am opposite an object, and can perceive whether it be tall or short, slender or bulky. I can also

detect whether it be a solitary object or a contiguous fence, whether it be a close fence or composed of open rails, and often whether it be a wooden fence, a brick or stone wall, or a quick-set hedge. I cannot usually perceive objects if much lower than my shoulder, but sometimes very low objects can be detected. This may depend on the nature of the objects, or on some abnormal state of the atmosphere. The currents of air can have nothing to do with this power, as the state of the wind does not directly affect it; the sense of hearing has nothing to do with it, as when snow lies thickly on the ground objects are more distinct, although the foot-fall cannot be heard. I seem to perceive objects through the skin of my face, and to have the impressions immediately transmitted to the brain. The only part of my body possessing this power is my face; this I have ascertained by suitable experiments. Stopping my ears does not interfere with it, but covering my face with a thick veil destroys it altogether. None of the five senses have anything to do with the existence of this power, and the circumstances above named induce me to call this unrecognized sense by the name of 'Facial Perception.'"

He adds the following examples of the accuracy of this sense:—

"When passing along a street I can distinguish shops from private houses, and even point out the doors and windows, etc., and this whether the doors be shut or open. When a window consists of one entire sheet of glass it is more difficult to discover than one composed of a number of small panes. From this it would appear that glass is a bad conductor of sensation, or at any rate of the sensation specially connected with this sense. When objects below the face are perceived, the sensation seems to come in an oblique line from the object to the upper part of the face. While walking with a friend in Forest Lane, Stratford, I said, pointing to a fence which separated the road from a field, 'Those rails are not quite as high as my shoulder.' He looked at them, and said they were higher. We, however, measured, and found them about three inches lower than my shoulder. At the time of making this observation I was about four feet from the rails."

In an analogous manner, positively deaf people are aware of persons walking behind

them, or of a loud noise, although of the nature of the noise they have no clear conception. The waves of sound impress them in some other way than through the nerves of audition. The subject is one that offers an extensive and attractive field for study, and will some day yield unexpectedly rich results, we do not doubt.

THE RIGHTS OF MEMBERS OF SOCIETIES.

Last winter we took occasion to show how absurd was the pretence put forward by certain Medical Societies, and by an organ which tried to uphold them, that members of Medical Societies, if wrongfully treated by a majority, have no remedy. We claimed they have a remedy, and that, other and milder means failing to gain them justice, they have a right to use it without being howled at by partisan journalists.

A late decision of Judge STITES, of Louisville, in the case of Cook *vs.* the College of Physicians and Surgeons, expresses tersely the law on this point. Cook petitioned for a writ of mandamus to compel the College to restore him to membership, from which he had been ejected. The writ was denied on the general ground that he had shown no injury received either to person, property, or reputation, and also on the technical ground that under the Kentucky State code only executive and ministerial officers can be compelled by mandamus, and such the officers of the Society were not shown to be.

The learned Judge ruled as follows:

"The exercise of an inherent and incidental power of expulsion is, of itself, not an act the commission of which is forbidden by law. Neither is refusal to recognize such expelled person as a member of the corporation body an omission to do an act the performance of which is enjoined by law. And, as we have seen, it is only in one or the other of the class of cases named that the writ is allowed under the code.

We do not mean to say that the exercise of the power to expel may not be wrongful and illegal, and that such wrongs are not remediable. But we do say that, in our

opinion, when complaint is made of the exercise of a power like this as wrongful, the party complaining must set forth the facts which make it wrongful. A mere allegation of the fact of expulsion accompanied with a charge that it was wrongful will not suffice. The charge of illegality and wrong is only an allegation of a conclusion and that of law."

This is precisely what we insisted on, namely, that while any such Society has the right of expulsion, it must exercise that power with due regard to the rights of the individual, and when it neglects to do this, it lays itself open to an attack under the law, and if the expelled member takes that remedy, no one but the most willfully blinded partisan will blame him.

NOTES AND COMMENTS.

On Tobacco Amaurosis.

In the last volume of the Royal London Ophthalmic Hospital Reports, Dr. JONATHAN HUTCHINSON gives a series of statistics on the Amaurosis attributed to the use of Tobacco. In his remarks on these cases he says:—

Holding the opinion that there must be some pre-existing peculiarity in the nervous systems of those who become the subjects of tobacco amaurosis, I have been very anxious to discover, if possible, whether it reveals itself by any other signs. The only points in this direction to which I feel at present inclined to attach any importance are the following. Not unfrequently it will be found that these patients have had unusual difficulty in learning to smoke, and have throughout life displayed special susceptibility to its influence, and that also they have often been, beyond the average, liable to suffer from sea-sickness. In the tabular statement some information will in many cases be found given on these points. My attention to the matter of sea-sickness was first given in consequence of the statements of some patients who were sailors, and who specially referred to it.

We have, during the last few years, made the observation that those who suffer are, almost invariably, smokers of *shag*, the most deleterious form of tobacco. As regards the results from disuse of tobacco my

impression is strong, that almost invariably when the disuse is real and complete, the state of vision improves. I cannot exaggerate the expression of my conviction as to the duty of urging immediate and complete abstinence in the early stages of this most serious malady. Many of my patients came too late; have continued to smoke until the disease was far advanced. I have never seen a case in the early stage in which the disease went on to blindness if the patient had strength of will to give up the habit. In a large majority of those in whom, according to the patient's account, the habit was wholly abandoned, I had reason to suspect that it was only reduced. My experience on this point fully confirms that of Mr. MACKENZIE, that there are those "who would rather smoke than see." It is very few, however, who have the honesty to admit their inability to give up the habit, and hence a very annoying source of fallacy in our inferences as to the effect of treatment.

A State Commission on Insanity.

We observe that Gov. HOFFMAN has appointed a commission, consisting of the Attorney General of the State, Dr. Anderson, President of the Rochester University, and Dr. Thomas Hun, of Albany, with authority to investigate all charges that may be laid before them against any asylum for the insane, under public or private management, in the State of New York, and to visit and inspect the several asylums, with or without charges being made against them, with a view to discovering abuses wherever they exist, and has requested them to report the result of their inquiries as soon as possible. Under the laws of the State, justices of the peace are empowered to commit persons to lunatic asylums, without any other evidence than the mere certificate of two physicians. It is charged that the law has been abused in a great number of instances, persons having been shut up in these institutions on allegations of insanity which were untrue, for the purpose of accomplishing some ulterior object, such as the prevention of a marriage, or more frequently, the bequest or distribution of property.

Every State should have a competent commission, a part, at least, of whose duties should be to investigate the management of all institutions, public and private, for the treatment of the insane, imbecile and inebriate, and to examine into all cases of

alleged abuses. While all necessary guards should be thrown around the transfer of insane persons to hospitals for treatment, it should not be made so difficult that such persons cannot be so transferred on short notice when necessary, as is often the case.

Case of So-called "Adipocere."

Corpses buried in humid ground sometimes undergo a change into a kind of soap, the alkali being ammonia, and the fat showing an excess of margaric acid. The chemist FOURCROY supposed that this *gras des cadavres* is identical with cholesterine and spermaceti, and united them under the name *adipocere*. This view was disproved by CHEVREUL.

The following instance is given in the *Tribune*, of South Bend, Ind. It appears that about two years ago a lady of that city, who died from over-exertion, was buried there, and that recently the grave was opened for the purpose of transferring the remains to another resting-place. The persons employed found themselves unable to move the coffin on account of its great weight, arising, it was supposed, from the petrification of the corpse. On raising the coffin from the grave it was opened, and although petrification had not taken place, the corpse was as perfect as the day it was placed in the coffin. After it had been brought to this city, a more careful examination was given it. It was estimated to weigh about two hundred pounds. The whole body was perfectly preserved, even to such parts as the tongue, which could be moved back and forth in the mouth. The expression of the face was retained, and the color of the face was natural, except for its waxy appearance. The shroud, when exposed to the air, fell to dust. It was an instance of that kind of conversion of the flesh of a dead body into what is called "*adipocere*," which looks very much like spermaceti. Similar cases, though rare, have been known to occur in Philadelphia.

On Proving Medical Services.

It is but rarely that a medical man brings suit to recover his fees, and it then becomes a matter of importance to know whether his oath is sufficient proof to establish the fact of his visits. A case in point is reported in the *Canada Medical Record*, of September. In the city of Montreal, very recently, a

medical practitioner sued a person for a bill of small amount. The circumstances which led to the suit being taken out were of a peculiarly aggravating character, or the action would not have been entered upon. The case went by default, and the plaintiff was placed in the witness box to swear to the correctness of the account. He had scarcely done so when the judge said it would be necessary for him to prove the visits before he could give judgment. To this the plaintiff demurred, stating that beyond his individual oath as to the visits having been made, it was impossible to produce other testimony. The judge then said if one visit was proved he would take the oath of the medical man with regard to the rest. To this the plaintiff gave the same reply as before, stating that if able to prove one visit, he would, in all probability, have been able to prove all. Under the circumstances the Judge (Beaudry) refused judgment, and the case was put aside. At the following term, before another judge, judgment was obtained without the slightest trouble.

In all such cases the oath of a practitioner ought to be deemed abundant evidence.

Neuralgia of the Testis.

In the majority of cases, says Dr. LAZARUS, in the *Wiener Med. Presse*, July, 1872, neuralgia of the testis is caused by *abstinence from coition*. Not in real celibates, however, but in those accustomed to indulge their passions, and who for any cause are prevented from doing so for a long time. It is often relieved by an involuntary nocturnal emission, or by a half-successful coitus. (?) Unsatisfied sexual excitement produces it; hence its vulgar name, "horn colic."

As a very efficacious remedy, the Doctor recommends *sulphate of zinc*, both internally and hypodermically, in the usual doses. For the stomach, it may be combined with a little hydrocyanic acid.

A Positive Sign of Death.

In 1870 the Academy of Sciences of Paris offered a prize of twenty thousand francs for some simple and positive sign of death, one which can be applied at any time by non-medical persons, requiring no instruments, and unmistakable in its indications.

Of course, a number have been spoken of. The latest, and perhaps the best, is that sug-

gested by Dr. HUGO MAGNUS, of Breslau, in one of the latest numbers of *Virchow's Archiv*. It is simple, physiological, and conclusive. Everybody knows that when the circulation positively ceases the man is dead. No matter how profound the coma or trance, no matter how deathlike the lethargy, some circulation *must* continue, be it ever so sluggishly. When it stops once, resuscitation is impossible.

All that one has to do, therefore, is to tie a string firmly around the finger of the supposed corpse. If there is the least spark of life left, that is, if the blood circulates at all, the whole finger, from the string to the tip, will gradually turn a bluish red, from the engorgement of the veins. Nothing else, no post-mortem infiltration, can be mistaken for this appearance.

We attribute a great deal of importance to this suggestion, and consider it the most practical and satisfactory of any we have seen.

Resorts for Consumptives.

Dr. LOMBARD, in an Italian medical journal of recent date, *La nuova Liguria Medico*, June, 1872, has published an able essay, recommending for consumptives, and those threatened with weak lungs, a residence in cool and elevated localities, at least fifteen hundred feet above the level of the sea. Only such places should be chosen, however, as have comfortable accommodations, a generally clear sky, readiness of access, pleasant scenery, and the conveniences requisite for an invalid. Cold bathing, gymnastics, and open air exercise, abundance of milk, butter, nourishing fatty diet, good wine, and cod-liver oil, are the indispensable accessories. With these, the chances of a complete cure are very good, in the early stages.

He adds a list of such places in Europe. In Italy there are Bormio and Uzeglio; in Switzerland, Davos, on the Platz (where there is an excellent sanitarium), about four thousand eight hundred feet high; Samaden, St. Moritz, Pontresina, Maloja, and Tarasp; in France, Mondore, Caunteret, St. Sauveur; in Spain, Pentigosa, in the mountains of Aragon; in Germany, G6rbersdorf, fifteen hundred feet high.

To our thinking, these recommendations of Dr. LOMBARD are the soundest we have read for a long while.

Effects of Bad Air Illustrated.

A striking example of the effects of vitiated air is detailed by Dr. R. A. SMITH, of London, in *Nature*. It sets in a clear light the fact that no great diminution of the percentage of oxygen in the air is necessary to make an atmosphere almost deadly to human beings, and the fact that we may be about as ignorant of the noxious quality of the air we are breathing, even while we are taking it into our lungs, as we are susceptible of injury from it. In some of his experiments he used an air-tight chamber, the atmosphere of which he vitiated by burning candles in it. On one occasion a young lady, who was anxious to make the experiment, got into this enclosure just as the candles were put out, and at the end of five minutes, during which she made light of the difficulty, it was necessary to help her out, the partial asphyxiation having taken place in an atmosphere in which the percentage of oxygen was about 19.0.

NEWS AND MISCELLANY.

Thiers vs. Materialism.

It seems that M. THIERS, although burdened with the cares of State, as President of the French Republic, has not entirely abandoned his literary labors. On the contrary, an important philosophical work is about being published from his pen. On this subject we find the following, credited to *Galignani*:—

The Prefect of the Vienne, M. de Lavedan, in a speech at the distribution of prizes of the College of Poitiers, made the following revelations: "A few weeks ago," said he, "in the midst of most important public business, M. THIERS did me the honor to inform me that he was occupied with a special work, independent of his other labors. 'I should be glad,' he exclaimed, in a tone of noble indignation, 'to confound materialism, which is a folly as well as a peril. There is a fine book to be made on this subject, and I have as yet only written the half of it. Certainly I devote myself with my whole heart to the liberation of the territory and the reorganization of the country, but at times I cannot help regretting my peaceable and cherished studies. For twelve years I have been engaged in this work; during all that time I have been demanding from botany, chemistry, and natural history their arguments against the detestable doctrine which leads honest people astray. I am a spiritualist, an impassioned one; and I am anxious, I repeat, to confound materialism in the name of science and good

sense." The *Courrier de France* adds another detail. In speaking one day with some friends about his new volume, M. THIERS said: "I must give a pendant to my book upon property. I am preparing it; a work against materialism. There is no great distance between the enemies of God and the foes of those who possess anything."

Strange Superstition.

One would hardly look for such a superstition as the following, in the State of Massachusetts: At the request of his son, who is sick, of consumption, William Rose, of Saundertown, Mass., lately dug up the dead bodies of two of his children, in order to burn the liver and heart, intending by this ceremonial to cure his sick son, upon whose vitals, in accordance with a popular superstition, the dead were supposed to be preying. It is added, that this is not the first time that graves have been dug up where consumption was prevalent in the family, and the vital parts burned, in order to save the living. A few years ago the same was done in the village of Moorsfield, and also in the town of North Kingstown.

The Cholera in Russia.

From the beginning of the spring, when the epidemic commenced, up to the 1st of September, there were 2793 cases of cholera in St. Petersburg. Of these, 1203 recovered, and 1349 died, 241 remaining under treatment at that date. In the last week in August 5557 cases were reported from different parts of Russia in Europe.

Eye Clinics.

A Greek merchant of Bucharest whose sister had been cured of a cataract by Dr. Kugel, a pupil of Graefe, has established a handsome hospital for diseases of the eye in that city, with an income of 40,000 francs.

Prof. Jacobson, of Königsberg, has opened a clinic in that city for diseases of the eye.

POSSIBLY Dr. GROSS never said what some one has attributed to him in the following item which we find "going the rounds," but he says so many good things that do not get into print, that we give him the benefit of this.

Dr. Gross, the celebrated surgeon, was once dangerously ill. Soon after his recovery he met one of his lady patients, who remarked to him, "O, Doctor, I rejoice that you are out again! Had we lost you, our good people would have died by the dozen." "Thank you, madam," replied the affable Doctor; "but now I fear they will die by the Gross."

THE late George Jaques, of Worcester, Mass., bequeathed the bulk of his property, nearly \$500,000, for the benefit of the City Hospital of Worcester.

The Health of Heidelberg.

This beautiful and favorite resort for American students and families has been afflicted this summer with an epidemic of typhoid fever. About 200 cases are reported, several students among them. The disease is attributed to defective drainage and the high water in the Neckar this summer.

THE French Academy of Sciences has declined to elect Darwin among its members. The reason given is that Darwin is not scientific; "that he has too far sacrificed reason to imagination to deserve a place in the first rank of scientists."

DR. H. M. KNIGHT, of Lakeville, Conn., having been awarded an appropriation of \$10,000 from the last Legislature, is prepared to expend it in the enlargement of his school for imbeciles.

MARRIAGES.

EVANS-OLIVER.—October 1, at the residence of the bride's father, H. W. Oliver, Sr., Esq., Hazelwood, Pittsburg, by the Rev. C. Dorsie, Dr. C. Evans and Miss Maggie B. Oliver.

GARRISON-COX.—September 30, at Wenonah, Gloucester county, New Jersey, by Rev. S. M. Hudson, Joseph E. Garrison, M. D., and Miss Anna E. Cox, both of Wenonah.

HUTTON-ROBBINS.—At the house of the bride's parents, on September 24th, by Rev. N. S. Buckingham, Dr. T. J. Hutton, of Shenandoah, Pennsylvania, and Miss H. Lapett Robbins, of Bloomsburg.

KING-FISHER.—October 1, at Devon, Bucks co., Pennsylvania, by Rev. Frederick W. Beasley, D.D., Dr. Charles E. King, of Andalusia, Bucks county, Pennsylvania, and Nancy V., daughter of the late William W. Fisher, of Philadelphia.

LOZIER-DE LA MONTAGNE.—In Brooklyn, October 1, at the residence of the bride's parents, by Rev. F. Bottome, D. D., Abraham W. Lozier, M.D., of Yonkers, New York, and Jennie De La Montagne, of Brooklyn.

PRICE-REMINGTON.—At St. John's Episcopal Church, Baltimore county, Maryland, by the Rev. H. Y. Pindle, Dr. Mordecai Price, of Philadelphia, and Fannie F. Remington, of Baltimore county, Maryland.

RICHTER-ROBBINS.—October 2, by the Rev. J. De Wolf Perry, Henry W. Richter, M. D., of Brooklyn, L. I., N. Y., and Lizzie, daughter of Jeremiah Robbins, of Germantown, Pa.

WALWORTH-YEISER.—September 14, at Trinity Church, in Danville, Kentucky, by the Rev. D. S. Goodloe, Ernest Walworth, of Arkansas, and Miss Mary D. Yeiser, daughter of Dr. Daniel Yeiser.

DEATHS.

BAELZ.—In Pittsburg, September 30, Dr. C. Baelz, in the 58th year of his age.

CHESLEY.—At Norwalk, Connecticut, September 2, Ira Gregory, M. D., in his 69th year.

HILL.—In St. Louis, Mo., September 25th, of convulsions, Robert C., infant son of Dr. R. J. and Lucy Hill.

JOHNSTON.—In Philadelphia, on the 4th inst., after a short illness, W. Poyne Johnston, M. D., in the 28th year of his age.

MASON.—In Philadelphia, October 1, Dr. John K. Mason.

RICHARDSON.—In Brooklyn, October 3, Susan P., wife of Edward T. Richardson, M. D.

WHEATON.—The wife of Dr. W. Wheaton, of Jackson Four Corners, New York, was killed, recently, at a pole-raising at Randolph Centre. The pole broke, and struck her.